

ABSTRACT OF THE DISCLOSURE

A variable capacitor element including: a buried electrode layer of a conductivity type different from a semiconductor substrate; a wiring layer
5 connected to the lead portion of the buried electrode layer; a pair of capacitive insulating films that are formed as regions having mutually opposing adjacent sides in a plane shape on a portion of the buried electrode layer excluding the lead portion; an insulator layer formed on the border region of each outside of the pair of capacitive insulating films in a direction perpendicular to the adjacent sides; a
10 pair of conductor layers formed both on the respective capacitive insulating films and on the respective insulator layers; and wiring layers that are connected respectively to lead portions of the pair of conductor layers above the insulator layer. The capacitance value between the buried electrode layer and each of the conductor layers can be changed by changing the voltage between the buried
15 electrode layer and the conductor layers. A parasitic capacitance between the respective variable capacitor elements is reduced.